



**US Army Corps
of Engineers®**

Seattle District

Notice of Preparation

Planning, Environmental, and Cultural
Resources Branch

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Seattle, WA 98124-3755

ATTN: Elizabeth McCasland (PMP-C)

Public Notice Date: 11 December 2017

Expiration Date: 10 January 2018

Reference: PMP-18-01

PROJECT NAME: *Mazama Levee Rehabilitation, Okanogan County, Washington*

Interested parties are hereby notified that the U.S. Army Corps of Engineers, Seattle District (Corps) plans to prepare, pursuant to the National Environmental Policy Act (NEPA), an Environmental Assessment (EA) for proposed levee repairs to the Mazama non-Federal Levee, constructed along the right bank of the Methow River near Mazama, Washington.

AUTHORITY

The proposed levee repair is authorized by Public Law 84-99 (33 U.S. Code Section 701n). The Corps' rehabilitation and restoration work under this authority is limited to the repair of flood control works damaged or destroyed by floods. The statute authorizes rehabilitation to the condition and level of protection exhibited by the flood control work prior to the damaging event. Okanogan County is the owner and non-Federal sponsor of the proposed action. Original construction of the project was completed in 1974. A previous PL 84-99 repair on the levee was completed in July 1999.

PROJECT LOCATION AND DESCRIPTION

This non-Federal flood control project is comprised of earthen embankment levee along the Methow River, approximately river mile 61.9 to 62.1, near the City of Mazama, Okanogan County, Washington (Township 35 North, and Range 20 East, Section 4). The levee is 1,450 feet long, approximately 8 feet tall (varies from 2-9 ft), approximately 18 feet wide at the crown (varies from 18-24 ft.), and has side slopes of 2H:1V riverward and ranged between 3H:1V to 5H:1V landward. Levee toe rock exceeded Class V (2-4 ton). The pre-damaged 2H:1V slope was armored with minimal displacement. The slopes were stable and offered full flood protection. Project location map is shown in Figure 1 and proposed access in Figure 2. Currently the thalweg of the river flows away from most of the lower length of the levee, such that it is anticipated much of the repairs will be in-the-dry. However, spring run-off could change this condition.

NEED

In its undamaged state, the levee provided flood risk reduction up to the 0.2 percent (500-yr) Annual Chance of Exceedance (ACE) event (overtopping). The levee provides protection to structures, including residences, public roads, and public utilities (water, power, and fiber optic).

Two flood events recorded in late May resulted in a substantial increase in water surface elevations for an extended period of time. During these high flow events, the Methow River discharge at Pateros (USGS Gage # 12449900) exceeded flood stage and maximum flow reported was 19,540 cubic feet per second (cfs). Based on flow and stage data, this storm event was approximately a 10-percent ACE flood event. High river flows in the Methow River resulted in erosion of the levee toe, including movement and loss of riprap up to several feet above the water level. These damages were observed during a site visit on July 19, 2017 (Figures 4 and 5). The approximate area of missing material is triangular, 6 feet high and 25 feet wide, along approximately 225 ft. of the alignment. Repair of this levee would restore it to damage risk reduction up to a 0.2 percent ACE event, also described as a 1 in 500 chance flood event or 500-year event.

PURPOSE

The purpose of the project is to restore the levee to the pre-damage level of flood risk reduction in order to protect lives and property from subsequent flooding.

PROPOSED ACTIONS

Four alternatives are being considered and are as follows:

- a) No Action Alternative. The No Action Alternative would leave the levee in its current damaged state. This alternative would not meet the project purpose because the levee would likely be further damaged in future flood events and could fail. This alternative is unacceptable because failure to take action would endanger protected homes and public infrastructure (roads, water, power, and fiber optic) during future flood events.
- b) Non-Structural Alternative. This alternative consists of floodplain management strategies generally involving changes in land use offered by other federal and state programs. Such strategies would include: zoning, easements, flood warning, floodplain evacuation, and flood insurance. Nonstructural strategies involve acquisition, relocation, elevation, and flood proofing existing structures. The costs and timeframe for implementing this alternative makes it impractical. Furthermore, the participation of the non-Federal sponsor would be required to implement a non-structural alternative, and the Sponsor has not agreed to meet its various obligations in executing a non-structural alternative.
- c) Set Back Levee. This alternative would shift the alignment of the levee embankment landward by a yet-to-be-determined distance in order to avoid or minimize direct contact with the river current. Typically, the setback would be a newly-constructed earth embankment structure and would abandon the existing levee located on the river bank. This alternative maintains the level of flood risk reduction but increases floodplain access for the river. This alternative would also require participation of the non-Federal sponsor to implement, and the Sponsor has not agreed to meet its various obligations in executing a setback alternative.
- d) Repair in Kind Alternative. This alternative would restore the damaged levee section to a condition similar to existing undamaged sections in the vicinity which relies on riprap for

erosion protection. The proposed repair includes repair of levee slope and toe along the 225 linear foot (LF) section from station 8+75 to 11+00. The slope will be reworked and re-armored with stone, and the levee toe will be reconstructed (Figure 3). Proposed work would take place in the summer months, and would include clearing and grubbing of streamside shrub vegetation and approximately 15 trees (approximately 10 conifers and 5 cottonwoods, 8-12 inches Diameter Breast Height (DBH)) on the riverward side of the levee. The toe will be reconstructed in the pre-damage toe location using Class IV riprap. The damaged slope will be repaired with a 12-inch layer of quarry spalls, and then re-armored with a 3-foot thick blanket of Class IV riprap. The upstream and downstream ends will be smoothly transitioned into the existing slopes. Anticipated environmental conservation measures will be included in the project. All repairs will occur within the pre-damage footprint. Total construction length would be approximately 225 LF. The repair work is expected to take 3 to 4 weeks to complete.

The Repair In Kind Alternative was selected as the preliminarily recommended alternative for the Mazama levee repair. This alternative would incur the least cost to restore the full level of protection. Final selection of the preferred alternative will be made after final design has been completed. The alternatives will be evaluated according to NEPA. Any recommendations that emerge from NEPA and the Endangered Species Act (ESA) evaluation will be considered. All NEPA and ESA processes are intended to be completed prior to project construction.

Best management practices would be employed to minimize project impacts. Project construction may include environmental enhancements to offset temporary construction impacts and long-term loss of vegetation on the levee slope. Environmental enhancements will be assessed further during the NEPA analysis, including full consideration of those proposed by agencies during NEPA coordination. Appropriate enhancements would be incorporated into the project during Engineering and Design. Environmental enhancements already incorporated into the design concept include best management practices to protect water quality and minimizing in water work during construction to mitigate impacts to water quality and aquatic organisms.

EXISTING CONDITIONS

The Upper Methow River has naturally occurring low flows and dewatering reaches, these conditions can create passage barriers to salmon. In some years portions of the river go dry during September, October, and early November. Low flows can begin in late summer and persist until the onset of spring runoff. Water quality is generally good. Over the past century, the extent and viability of riparian vegetation in the Methow has been significantly diminished. Numerous impacts stemming from human alterations to the environment have acted in conjunction with inherent natural variation to influence the Methow watershed. Human impacts in the lower reaches of the Methow have included road construction, conversion of riparian habitat for agriculture and residential development, water diversions, and diking. Additional impacts extend to the upper reaches of the drainages, including timber harvest, road building, and grazing. These impacts can increase sedimentation and bank erosion, reduce the extent and availability of riparian vegetation, decrease instream flow, and limit channel function.

ANTICIPATED IMPACTS

The Corps' preliminary analyses of the principal effects of the proposed Repair-in-Kind Alternative are summarized below.

Wetlands: No wetlands are located in or immediately adjacent to the repair sites.

Water Quality: The Methow River at the repair site is not impaired for TMDL. Rehabilitation of the levee would require work in the active channel with some work below the elevation of ordinary high water. In-water work would be minimized to the greatest extent possible. Construction could be expected to cause minor, temporary, localized increases in turbidity. Best management practices, including restrictions on fueling and prevention of fluid leaks from construction equipment would minimize discharge of pollutants into the river. Construction materials would be obtained from contaminant-free sources.

Turbidity would be monitored upstream and downstream of the project site during construction, if required. If turbidity exceeded state water quality standards, particulate-generating activities would be halted until standards were met and construction methods would be changed to avoid future exceedances.

Biological Resources: The following species are listed under the Endangered Species Act (ESA) and are documented as present in the general project area:

- Upper Columbia summer steelhead (*Oncorhynchus mykiss*) – Endangered
- Spring Chinook salmon (*O. tshawytscha*) – Endangered
- Bull trout (*Salvelinus confluentus*) – Threatened
- Canada lynx (*Lynx canadensis*) – Threatened
- Gray wolf (*Canis lupus*) – Endangered
- Grizzly bear (*Ursus arctos horribilis*) – Threatened
- North American wolverine (*Gulo gulo luscus*) – Proposed threatened
- Yellow-billed cuckoo (*Coccyzus americanus*) – Threatened
- Whitebark pine (*Pinus albicaulis*) – Candidate

In addition, the project area is within the designated critical habitat for steelhead, Chinook, and bull trout, and proposed critical habitat for yellow-billed cuckoo. Potential effects of the proposed project on threatened and endangered species and designated critical habitat will be addressed in accordance with Section 7 of the ESA.

Waterways that are inhabited by listed species have approved fish work windows identified to limit impacts to listed species. For the Methow River, the preferred in-water work window to avoid or minimize impacts to listed fish species is July 1 to August 15.

Canada lynx, gray wolf, grizzly bear, wolverine, and whitebark pine are not expected to be present in the specific project area due to specialized habitat requirements, lack of tolerance for human activity, or both. The project would be unlikely to affect individuals of those species. The project area is not within designated or proposed critical habitats of these species.

To accomplish construction and reduce impacts, work will be conducted from the shoreline using the existing turn around road which is accessible directly off of Methow Ranch Road. The repair work is planned for the early July time frame, fully within the approved in-water work window.

Bald eagles, which are protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act, are not known to nest in the immediate vicinity. The primary impacts to fish and wildlife would be temporary increases in turbidity, noise, vibration, and human activity, which may displace fish and wildlife during construction. Removal of vegetation may displace wildlife and slightly reduce in-water shade and organic input to the river. The project includes willow plantings at the ordinary high water line of the levee, and the planting of rooted tree stock at a ratio of 1:2.5 for any trees lost.

Cultural Resources: The Corps is currently taking actions to identify historic properties that may be affected by the proposed action as required by Section 106 of the National Historic Preservation Act. The Corps is consulting with the Washington State Historic Preservation Officer (SHPO), Indian tribes, and other consulting parties, about the project and will complete identification and evaluation for historic properties as well as make agency findings of effect for Section 106 prior to approval of the proposed action.

Air Quality: Construction vehicles and heavy equipment used during the proposed construction would temporarily and locally increase gasoline and diesel exhaust fumes. The small area of construction and the short duration of the work would limit the impact to air quality. The activity would constitute routine repair of an existing facility, generating an increase in direct emissions of a criteria pollutant or its precursors that would clearly be de minimis and would therefore be exempted by 40 CFR Section 93.153(c)(2)(iv) from the conformity determination requirements. Emissions generated by the construction activity would be minor and short-term. Unquantifiable but insignificant exacerbation of effects of carbon dioxide emissions on global climate change would be anticipated.

Noise: Temporary increases in noise would occur as a result of construction for the proposed action. No long-term change in noise levels would occur as a result of the project. Work would occur during daylight hours to minimize disruption to nearby residents.

Traffic: Construction-related traffic may cause temporary increases to, and disruption of, local traffic. Flaggers and signs would be used, as needed, to move traffic safely around the construction site. No long-term change in traffic would occur as a result of the project.

Cumulative Effects: The proposed action would not appreciably alter the baseline condition. Cumulative effects of these actions will be fully considered in the environmental documentation, as required under NEPA and ESA.

COMPLIANCE WITH OTHER LAWS AND REGULATIONS

The Corps will coordinate the proposed action with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service concerning effects of the proposed repair activities on threatened and endangered species and their critical habitat, pursuant to Sec. 7(a)(2) of the ESA.

The proposed project will be analyzed with respect to its effects on Tribal Treaty Rights or rights reserved to tribes through executive order or other legal instrument. The proposed action area is within the area of interest of the Colville Confederated Tribes, Spokane Tribe, Kalispel Tribe, and the Yakama Nation. The Corps will coordinate and consult with these tribes on the proposed

action. The Corps is consulting with SHPO, Indian tribes, and other consulting parties about the project in accordance with Section 106 of the National Historic Preservation Act as implemented in the regulations at 36 CFR Part 800.

The Corps concludes that the project is not subject to regulation under Sections 401 and 404 of the Clean Water Act. The exemption from the requirement to evaluate the effects of discharges of fill material into waters of the United States under 33 USC 1344(f)(1)B), as implemented by 33 CFR 323.4(a)(2), applies because all riverward work at the repair sites will be of the same character, scope, and size of the levee's original fill design. Therefore the proposed repair of the Mazama Levee does not require a 404(b)(1) evaluation nor a 401 water quality certification. The 225-foot total length of levee repair would be expected to disturb less than 1 acre of land, therefore a Section 402 permit will not be required.

EVALUATION

The Corps has made a preliminary determination that the environmental impacts of the proposed levee repair work can be adequately evaluated under NEPA through preparation of an EA, and preparation of an EA is currently underway.

The Corps invites submission of comments on the environmental impact of the proposed action. Comments will be considered in determining whether it would be in the best public interest to proceed with the proposed project. The Corps will consider all submissions received before the expiration date of this notice. The nature or scope of the proposal may be changed upon consideration of the comments received. The Corps will initiate an environmental impact statement (EIS), and afford all of the appropriate public participation opportunities attendant to an EIS, if significant effects on the quality of the human environment are identified and cannot be mitigated.

Submit comments to this office, Attn: Planning, Environmental and Cultural Resources Branch, no later than 30 days after the posting of this notice to ensure consideration. In addition to sending comments via mail to the above address (found on page 1), comments may be e-mailed to Ms. Beth McCasland, Environmental Coordinator, at Elizabeth.l.mccasland@usace.army.mil.

The Notice of Preparation can be found at the following website: <http://www.nws.usace.army.mil/Missions/Environmental/EnvironmentalDocuments.aspx> under "*Mazama Levee Rehabilitation, Okanogan County, Washington.*"

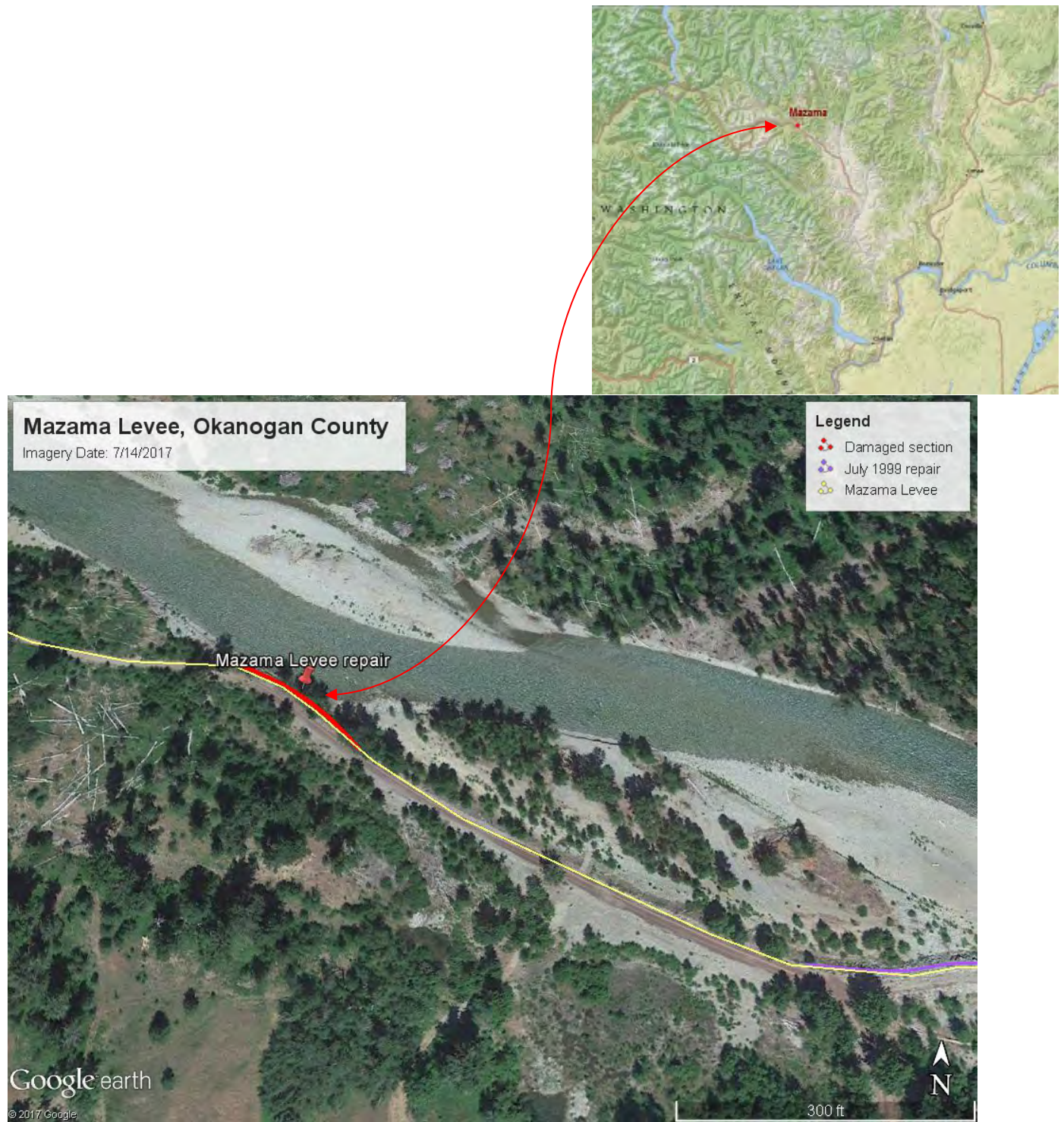


Figure 1. Project Location



Figure 2. Damaged Section (repair site), with proposed access route delineated in yellow.

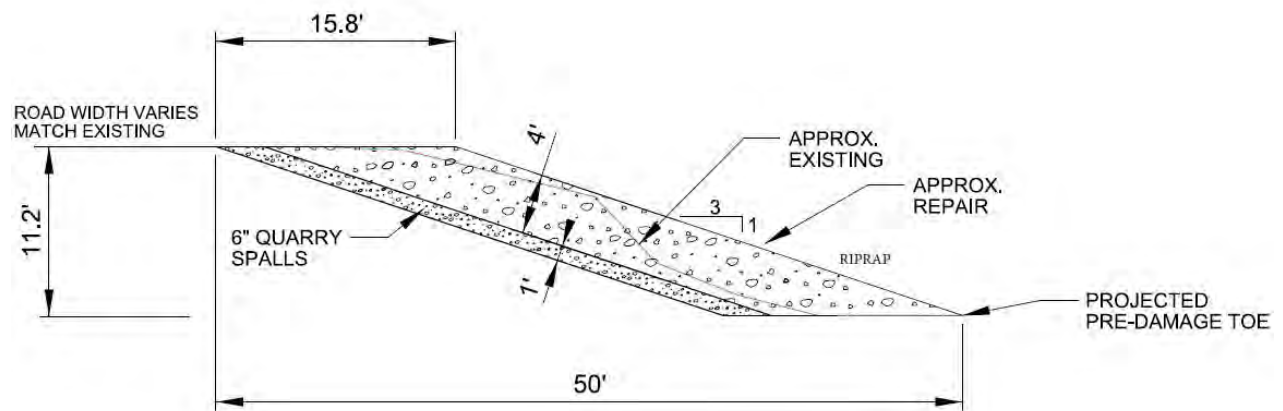


Figure 3. Typical cross-section.



Figure 4. Photos of damaged areas in the levee.



Figure 5. Damaged section of the levee (foreground), looking downstream of the Methow River.